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# **ECD and the Brain**

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Memorial Sloan Kettering Cancer Center



#### **ECD and the Brain: Overview**

• ECD lesions in the brain and spine

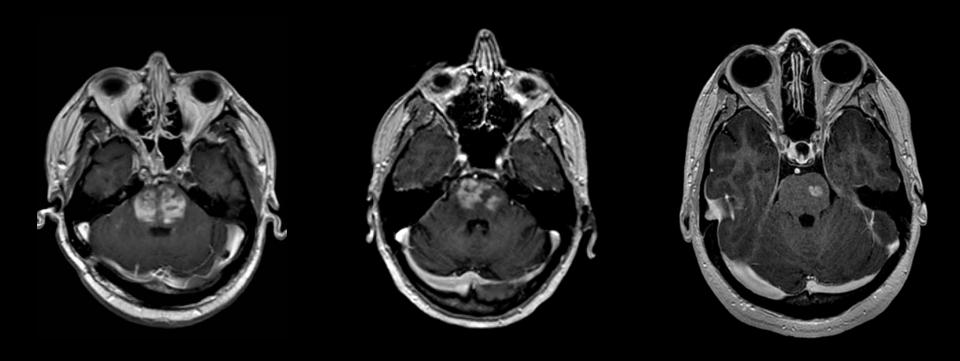
• Neurologic problems without lesions?

- Thinking and memory problems
- Other issues and what you can do

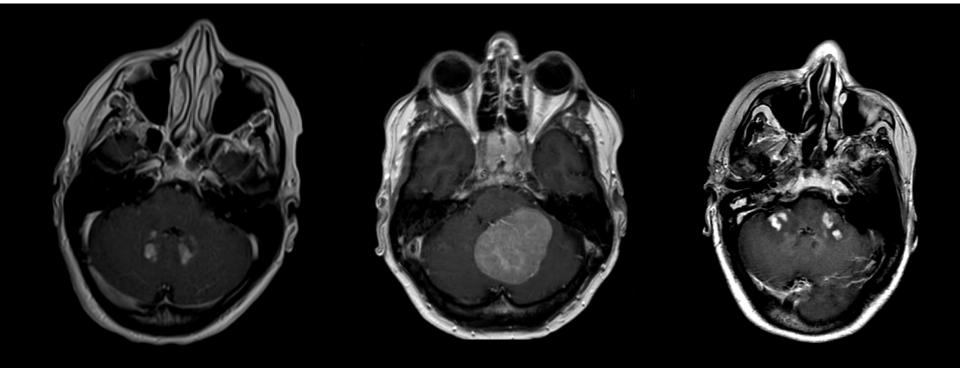
#### **ECD and the Brain**

- ~one third of ECD patients have problems in the brain
- Most common symptoms are balance problems, speech problems, coordination of arms and legs
- More severe symptoms include trouble swallowing
- Unusual or inappropriate emotions (laughing/crying)

#### **ECD in the brain**



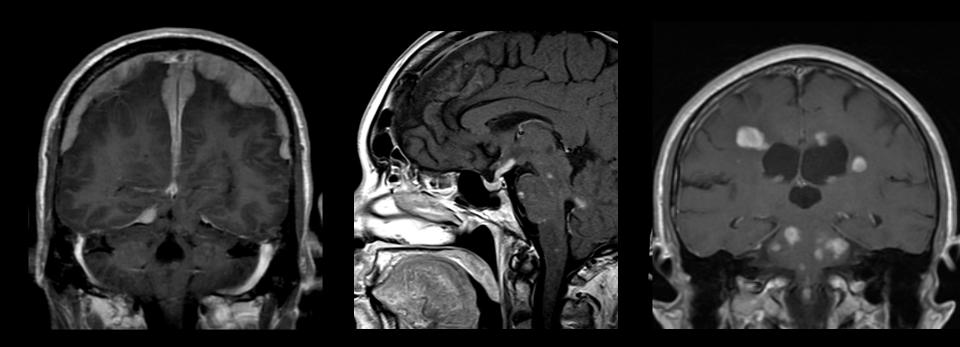
#### **ECD in the brain**



# **Other ECD brain symptoms**

- "dementia"
- Incontinence
- Hormonal problems including diabetes insipidus
- Mood and behavior problems
- Depression
- Fatigue

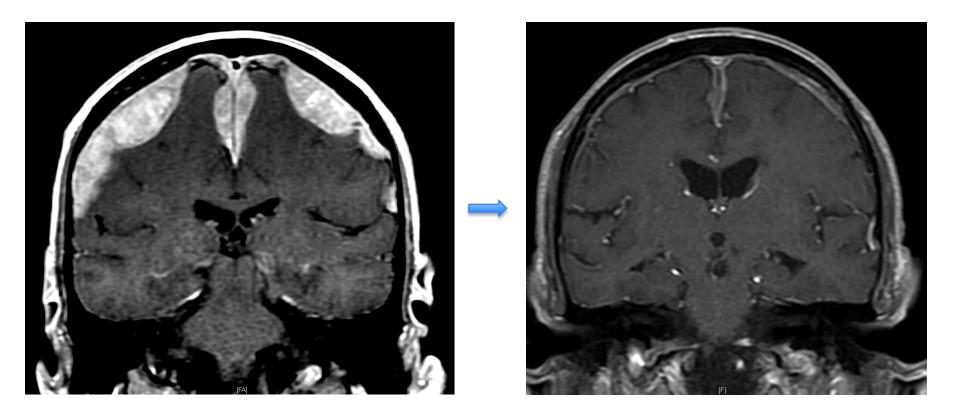
#### **ECD in the brain**



## **ECD in the brain: treatment**

- Probably most difficult form of ECD to treat
- Especially if BRAF "negative"
- But there are options
  - Interferon
  - Chemotherapies
  - Immune system drugs
  - New BRAF-like drugs in trials

## **Successful Treatment of BRAFnegative brain ECD**

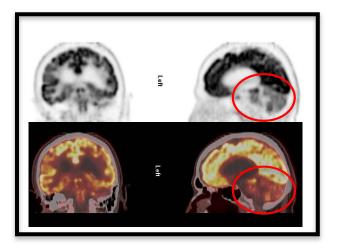


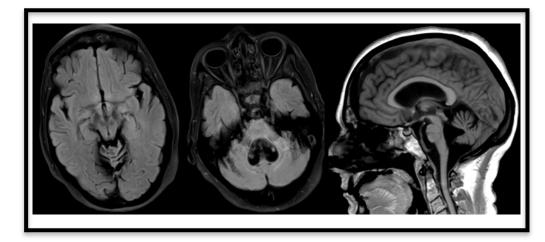
## **ECD and the spine**

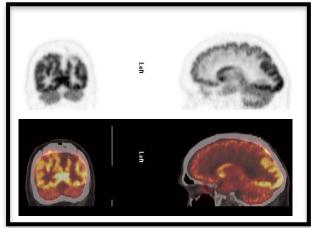
- Not very common, rare in the spinal cord itself
- But can affect bones of the spine, nerves in front of the spine
- Back pain
- Rarely, spinal cord problems if tumors grow and press on spinal cord

## **Balance problems without tumors?**

- Many ECD patients have balance problems without a good explanation
- Unsteadiness, falls
- We don't really understand this



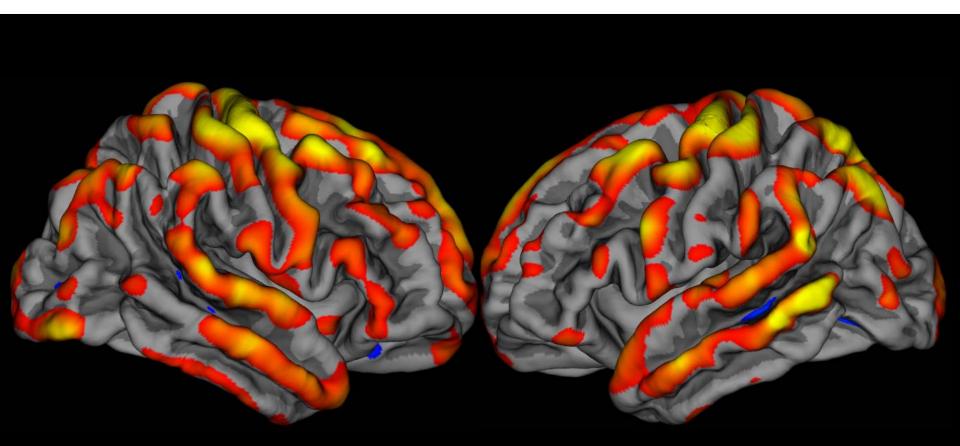




# **Cognitive Problems in ECD**

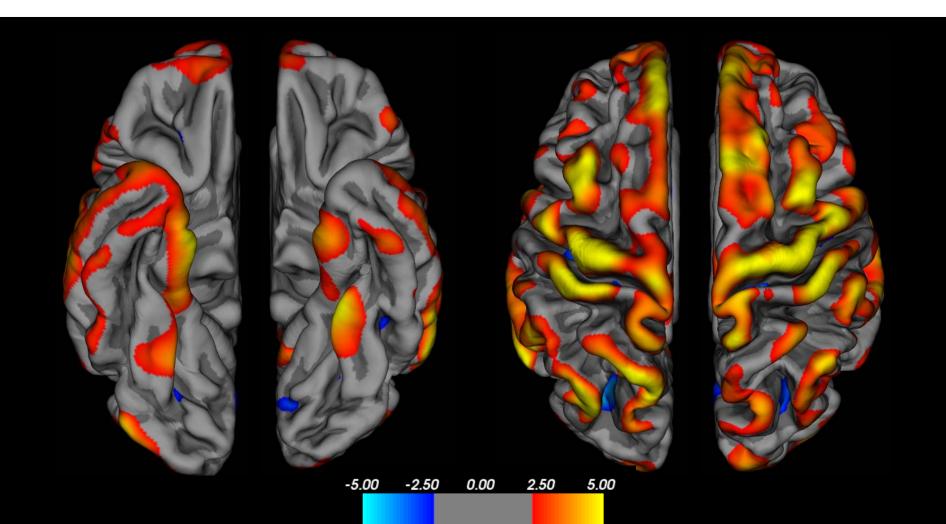
- Very common and unrecognized problem
- Trouble paying attention, trouble remembering things, multi-tasking
- Ability to work normally can be affected
- Even patients "without ECD in the brain"
- We don't really know why but we have ideas

#### **Brain changes in ECD without tumors**



-5.00 -2.50 0.00 2.50 5.00

#### **Cortical thickness: ECD versus normal**



# **Other neurologic problems**

- Neuropathy (numbness, burning, tingling in the feet) is VERY common
- Can also affect balance
- Pain can affect quality of life severely
- May be related to vitamin or nutritional problems
- Pain CAN be treated

#### What can you do

- **BE GREEDY** with your quality of life!
- All ECD patients should have a brain MRI
- Be evaluated for neuropathy
- Treat fatigue! There are many good medications. And exercise helps.
- Treat depression
- Get your vitamins and hormones checked
- See an ECD specialist if you have unexplained symptoms

# **Thanks**